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09/898,286	07/03/2001	Geoffrey Donald Tremain	1821-01100	2215

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EXAMINER	
CERVETTI, DAVID GARCIA	

ART UNIT	PAPER NUMBER
2136	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/898,286	TREMAIN, GEOFFREY DONALD	
	Examiner	Art Unit	
	David G. Cervetti	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 July 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments filed July 25, 2007, have been fully considered.

2. Claims 1-64 are pending and have been examined.

Response to Amendment

3. Applicant's arguments with respect to the prior art have been considered but are moot in view of the new ground(s) of rejection.

4. While the elements must be arranged as required by the claim, this is not an ipsissimis verbis test, i.e., identity of terminology is not required. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Note that, in some circumstances, it is permissible to use multiple references in a 35 U.S.C. 102 rejection. See MPEP § 2131.01.

5. Examiner, however, would like to address the fact that the application admits that virtualization technology was available and used, and the claims are only directed to what virtualization was designed to address, i.e. running multiple operating systems on a single computer system, as VMWare did. Furthermore, VMWare anticipated using and setting up multiple operating systems, configured to different requirements to address development, deployment, support issues on a conventional computing environment. What the customer allegedly is, is irrelevant, since there are multiple parties to a computing environment that provides with multiple, separately, and distinctly configured operating systems residing on a computer system. Further, since VMware is capable of performing the claimed invention, it meets the claim. See MPEP 2111.02.

6. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

7. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Drawings

8. Figure 1-6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3, 5-11, 13-22, 24-29, 31-39, 41-46, and 48-64 are rejected under 35 U.S.C. 102(b) as being anticipated by VMware (NPLs "VMware Technical White Paper", hereinafter WP, and "VMware™ Application Scenarios", hereinafter AppS).

Regarding claim 1, VMware teaches apparatus providing one or more computer services for a plurality of customers, the apparatus comprising a real computer on which is set up at the request of each of said customers at least one virtual machine for each of said customers **(WP, pp. 5-7)**, said at least one virtual machine for each of said customers having a specification specified by and configurable by the respective customer and having a separate operating system running thereon **(AppS, pp. 2-4)**.

Regarding claim 20, VMware teaches a method of providing one or more computer services for a plurality of customers, the method comprising the steps of: a service provider setting up on a real computer at the request of each of said customers at least one virtual machine for each of said customers **(WP, pp. 5-7)**, said at least one virtual machine for each of said customers having a specification specified by and configurable by the respective customer and having a separate operating system running thereon **(AppS, pp. 2-4)**.

Regarding claim 37, VMware teaches a method of operating a real computer on behalf of plural customers, the method comprising the step of: operating plural virtual machines on the real computer, each of said plural virtual machines having a specification specified by and configurable by a respective one of the customers in accordance with a computer service to be provided by the virtual machine on behalf of

that customer **(WP, pp. 5-7)**, each of said virtual machines having a separate operating system running thereon so as to provide respective computer services to the respective customers **(AppS, pp. 2-4)**.

Regarding claim 54, VMware teaches a method of providing for a plurality of customers one or more computer services selected from: file, data and archiving services; applications hosting services; database hosting services; data warehouse services; knowledge management hosting services; digital media production services; "intellectual property" and streaming media services; simple web hosting services; complex e-Commerce web hosting services; high performance computation services; electronic messaging and conferencing services; and, learning neuro-computer services **(WP, pp. 1-4)**; the method comprising the steps of: setting up on a real computer at the request of each of said customers at least one virtual machine for each of said customers **(WP, pp. 5-7)**, said at least one virtual machine for each of said customers having a specification determined in accordance with the computer service or services requested by said customer and being configurable by said customer, said at least one virtual machine having a separate operating system running thereon **(AppS, pp. 2-4)**.

Regarding claims 2, 21, and 38, VMware teaches wherein plural virtual machines are set up within the real computer for at least one of said customers **(WP, pp. 1-7)**.

Regarding claims 3, 22, and 39, VMware teaches wherein the or each virtual machine for at least one of said customers is connected to a virtual network set up for said at least one customer within the real computer.

Regarding claims 5, 24, and 41, VMware teaches wherein at least one virtual machine is connected to a virtual firewall that is connectable to an external network to which customers and/or other users can connect such that access to said at least one virtual machine by a customer or other user via a said external network can only take place through a virtual firewall **(WP, pp. 6-7, Apps, pp.4-6)**.

Regarding claims 6, 25, and 42, VMware teaches wherein the or each virtual machine for a particular customer is connected to a virtual firewall that is dedicated to that customer's virtual machine or machines, each virtual firewall being connectable to an external network to which each of said customers and/or other users can connect such that access to a virtual machine by a customer or other user via a said external network can only take place through a virtual firewall provided for that virtual machine or machines **(WP, pp. 6-7, Apps, pp.4-6)**.

Regarding claims 7, 26, and 43, VMware teaches wherein each virtual firewall is set up within the real computer, the or each virtual machine for each customer being connected to a first port of the virtual firewall that is dedicated to that customer's virtual machine or machines, each virtual firewall having a second port connected to a virtual network that is set up within the real computer and that is connectable to an external network **(WP, pp. 1-6, Apps, pp.4-6)**.

Regarding claims 8, 27, and 44, VMware teaches wherein the second port of each virtual firewall is connected to the same virtual network that is set up within the real computer and that is connectable to an external network **(WP, pp. 1-6, Apps, pp.4-6)**.

Regarding claim 9, VMware teaches wherein the or at least one of the virtual firewalls is implemented by a virtual machine on the real computer, said virtual firewall virtual machine running firewall software **(WP, pp. 6-7, Apps, pp.4-6)**.

Regarding claims 10, 28, and 45, VMware teaches comprising a plurality of real data storage devices and at least one virtual storage subsystem that is configured to allow said real data storage devices to emulate one or more virtual storage devices **(WP, pp. 6-7)**.

Regarding claims 11, 29, and 46, VMware teaches wherein the at least one virtual storage subsystem is configured to emulate at least one respective virtual storage device for each customer **(WP, pp. 6-7)**.

Regarding claims 13, 31, and 48, VMware teaches wherein the apparatus is configurable to provide at least one of the services selected from: file, data and archiving services; applications hosting services; database hosting services; data warehouse services; knowledge management hosting services; digital media production services; "intellectual property" and streaming media services; simple web hosting services; complex e-Commerce web hosting services; high performance computation services; electronic messaging and conferencing services; and, learning neuro-computer services **(WP, pp. 1-7, Apps, pp.1-6)**.

Regarding claims 14, 32, and 49, VMware teaches comprising virtual private network software to provide an encrypted communication channel for communication between at least some of said virtual machines **(WP, pp. 1-4)**.

Regarding claims 15, 33, and 50, VMware teaches virtual private network software to provide an encrypted communication channel for communication between at least one virtual machine and an external computer **(WP, pp. 1-4, AppS, pp. 4-6)**.

Regarding claims 16, 34, and 51, VMware teaches virtual private network software to provide an encrypted communication channel for communication between a first virtual network and a second virtual network **(WP, pp. 1-4, AppS, pp. 4-6)**.

Regarding claims 17, 35, and 52, VMware teaches virtual private network software to provide an encrypted communication channel for communication between a virtual network and an external computer **(WP, pp. 1-4, AppS, pp. 4-6)**.

Regarding claim 18, VMware teaches wherein the real computer comprises plural physical computers **(WP, pp. 1-4, AppS, pp. 4-6)**.

Regarding claim 19, VMware teaches in combination, a first apparatus according to claim 1 and a second apparatus that is substantially identical to said first apparatus, the first and second apparatus being connected by a communications channel so that the second apparatus can provide for redundancy of the first apparatus thereby to provide for disaster recovery if the first apparatus fails **(WP, pp. 1-4, AppS, pp. 4-6)**.

Regarding claims 36, 53, and 55, VMware teaches comprising the step of moving said at least one virtual machine from a first real computer to a second real computer **(WP, pp. 5-7)**.

Regarding claims 56, 59, and 62, VMware teaches wherein at least one of said virtual machines provides at least a virtual central processor unit **(WP, pp. 4-6, AppS, pp. 4-6)**.

Regarding claims 57, 60, and 63, VMware teaches wherein at least one of said virtual machines is created using a virtual machine abstraction program **(WP, pp. 4-6, AppS, pp. 4-6)**.

Regarding claims 58, 61, and 64, VMware teaches wherein at least one of said virtual machines is created using machine simulation/emulation software **(WP, pp. 4-6, AppS, pp. 4-6)**.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 4, 12, 23, 30, 40, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over VMware.

Regarding claims 4, 23, and 40, VMware does not expressly disclose a virtual intrusion detection device for detecting an attack on the virtual network. However, VMware teaches providing a workstation on a virtual environment and installing regular applications and Examiner takes Official Notice that the use of intrusion detection devices was conventional and well known, therefore having an intrusion detection module/device would have been obvious to someone of ordinary skill in the art.

Regarding claims 12, 30, and 47, VMware does not expressly disclose a detection device for detecting evidence of malicious software or hostile attack signatures on the at least one virtual storage subsystem. However, VMware teaches providing a workstation on a virtual environment and installing regular applications and Examiner takes Official Notice that the use of intrusion detection devices was conventional and well known, therefore having an intrusion detection module/device would have been obvious to someone of ordinary skill in the art.

Conclusion

13. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571)272-5861. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on (571)272-4195. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David García Cervetti/

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9/20/07